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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
| 10/086,897  | 03/04/2002  | Tomoyuki Yoshida     | 220287US2                       | 1909                        |
| 22850 7590 11/02/2007<br>OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.<br>1940 DUKE STREET<br>ALEXANDRIA, VA 22314 |             |                      |                                 |                             |
|   |             |                      | EXAMINER<br>BAKER, CHARLOTTE M  |                             |
|   |             |                      | ART UNIT<br>2625                | PAPER NUMBER                |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|                              |                                       |  |  |
|------------------------------|---------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/086,897  | <b>Applicant(s)</b><br>YOSHIDA, TOMOYUKI |  |
|                              | <b>Examiner</b><br>Charlotte M. Baker | <b>Art Unit</b><br>2625                  |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 7-20 and 22-23, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fotland (US 2001/0048529) in view of Yoo (6,421,146).

**Regarding claim 1:** Fotland discloses a storage unit which stores reference image data (stored reference image, par. 25) generated based on image data for reference color patches (par. 29); to provide stored image data of the reference color patches (par. 29); a display unit (Fig. 2, display screen 28) which reproduces two images (par. 25), a first image (first digital file, par. 12) based on processed image data; and a second image (second digital file, par. 12) based on the reference image data stored in the storage unit (stored reference image, par. 25) containing the stored image data; and which displays the two images so as to be contrasted with each other (par. 12); and an instruction unit (digital image control means, par. 12) which issues an instruction (color-blinking region) to execute calibration of conversion characteristics in the processing for color conversion based on the two images displayed on the display unit (Fig. 2, display screen 28) (par. 12).

Fotland fails to specifically address taken from a reference scan of the reference color patches; taken from a comparison scan of the same reference color patches after a predetermined plurality of images have been scanned; taken from the reference scan; wherein the reference scan and the comparison scan are scans of the same reference color patches.

Yoo discloses taken from a reference scan of the reference color patches (col. 6, ln. 38-59); taken from a comparison scan of the same reference color patches after a predetermined plurality of images have been scanned (col. 6, ln. 38-59 and col. 8, ln. 37-61); taken from the reference scan (time of manufacturing, col. 6, ln. 38-59); wherein the reference scan and the comparison scan are scans of the same reference color patches (col. 6, ln. 38-59 and col. 8, ln. 37-61).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a reference scan of the reference color patches and a comparison scan of the same reference color patches in order to provide adjustment of image quality as taught by Yoo (col. 1, ln. 17-27).

**Regarding claim 2:** Fotland in view of Yoo satisfy all the elements of claim 1. Fotland further discloses averaging unit (two images overlapped, par. 12) which averages the read image data for the reference color patches (par. 29), on a time varying basis (pars. 24 and 26), wherein the image data averaged by the averaging unit (two images overlapped, par. 12) is used as the read image data for the reference color patches (par. 29) that is displayed on the display unit (Fig. 2, display screen 28) as one of the images to be contrasted (par. 12).

**Regarding claim 3:** Fotland in view of Yoo satisfy all the elements of claim 2. Fotland further discloses a storage unit (par. 12) which stores the image data averaged by the averaging unit (two

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images overlapped, par. 12), wherein the averaging unit (two images overlapped, par. 12) averages a currently read image data and the image data fetched from the storage unit (par. 12).

**Regarding claim 4:** Fotland in view of Yoo satisfy all the elements of claim 1. Fotland further discloses wherein the color conversion is processing for converting an RGB space (color image is scanned, par. 10) that is specific to the color image sensor (scanner), to a standard color space (YMCK, pars. 10 and 12), and the reference image data stored in the storage unit is data for the standard color space (YMCK, pars. 10 and 12).

**Regarding claim 5:** Fotland in view of Yoo satisfy all the elements of claim 1. Fotland further discloses wherein the reference image data is data based on colorimetric values of the reference color patches (test patterns; YMCK, pars. 10 and par. 29).

**Regarding claim 7:** Fotland in view of Yoo satisfy all the elements of claim 1. Fotland further discloses wherein the reference image data is based on data obtained by reading the reference color patches (par. 29); of the image reading apparatus by the color image sensor (Fig. 1, scanner 2) to obtain image data for the reference color patches (par. 14), and by performing color conversion on the image data (RGB to CMYK, par. 10).

Fotland fails to specifically address in an initial state at the time of manufacture .

Yoo discloses in an initial state at the time of manufacture (col. 6, ln. 53-59).

**Regarding claim 8:** Fotland discloses a light source which emits light (Fig. 1, scanner 2), to which an image is exposed (par. 14); a color image sensor (Fig. 1, scanner 2) which reads the image as a target to be read exposed to the light to obtain image signals (par. 14), and outputs the image signals (Fig. 1, output of scanner 2 to original file 4); a color converter (Fig. 1, contained in scanner 2) which subjects the image signals to color conversion to obtain digital color image

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data and outputs the digital color image data (par. 14); a storage unit which stores reference image data (stored reference image, par. 25) generated based on reference color patches (par. 29); to provide stored image data of the reference color patches (par. 29); a display unit (Fig. 2, display screen 28) which reproduces two images (par. 12, first image file and second image file), a first image (par. 12, first image file) based on processed image data; and a second image (par. 12, second digital file) based on the reference image data stored in the storage unit (par. 25, stored reference image) containing the stored image data; and which displays the two images so as to be contrasted with each other (par. 12); and an instruction unit (par. 12, digital image control means) which issues an instruction (color-blinking region) to execute calibration of conversion characteristics in the processing for color conversion based on the images displayed on the display unit (Fig. 2, display screen 28) (par. 12).

Fotland fails to specifically address taken from a reference scan of the reference color patches; taken from a comparison scan of the same reference color patches by the color image sensor after a predetermined plurality of images have been scanned; taken from the reference scan of the reference color patches; wherein the reference scan and the comparison scan are scans of the same reference color patches.

Yoo discloses taken from a reference scan of the reference color patches (col. 6, ln. 38-59); taken from a comparison scan of the same reference color patches by the color image sensor after a predetermined plurality of images have been scanned (col. 6, ln. 38-59 and col. 8, ln. 37-61); taken from the reference scan (col. 6, ln. 38-59); taken from the reference scan of the reference color patches (col. 6, ln. 38-59); wherein the reference scan and the comparison scan are scans of the same reference color patches (col. 6, ln. 38-59 and col. 8, ln. 37-61).

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**Regarding claim 9:** Fotland discloses emitting light by a light source (Fig. 1, scanner 2) and exposing an image to the light (par. 14); reading the image as a target to be read exposed to the light by a color image sensor (Fig. 1, scanner 2) to obtain image signals and outputting the image signals (par. 14); color-converting the image signals to digital color image data (Fig. 1, contained in scanner 2) and outputting the digital color image data (par. 14); storing reference image data (stored reference image, par. 25) generated based on reference color patches (par. 29) to provide stored image data of the reference color patches taken after a predetermined plurality of images have been taken by the reading step (pars. 24 and 26); reproducing two images (par. 12, first image file and second image file), a first image (par. 12, first image file) based on data obtained by reading the reference color patches (par. 29); of an image reading apparatus (Fig. 1, scanner 2) by the color image sensor in the reading step to obtain image data for the reference color patches and by converting the image data in the color converting step (pars. 10, 12 and 29) and a second image (par. 12, second digital file) based on the reference image data stored in the storing step (par. 25, stored reference image) containing the stored image data of the reference color patches (par. 29), and displaying the two images so as to be contrasted with each other (par. 12); and issuing an instruction (color-blinking region) to execute calibration of conversion characteristics in the color converting step based on the images displayed (Fig. 2, display screen 28) in the displaying step (par. 12).

Fotland fails to specifically address in an initial state at the time of manufacture.

Yoo disclose in an initial state at the time of manufacture (col. 6, ln. 53-59).

**Regarding claim 10:** Fotland in view of Yoo satisfy all the elements of claim 9. The structural elements of claim 2 perform all of the steps of method claim 10. Thus, claim 10 is rejected for

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the same reasons discussed in the rejection of claim 2.

**Regarding claim 11:** Fotland in view of Yoo satisfy all the elements of claim 10. The structural elements of claim 3 perform all of the steps of method claim 11. Thus, claim 11 is rejected for the same reasons discussed in the rejection of claim 3.

**Regarding claim 12:** Fotland in view of Yoo satisfy all the elements of claim 9. The structural elements of claim 4 perform all of the steps of method claim 12. Thus, claim 12 is rejected for the same reasons discussed in the rejection of claim 4.

**Regarding claim 13:** Fotland in view of Yoo satisfy all the elements of claim 9. The structural elements of claim 5 perform all of the steps of method claim 13. Thus, claim 13 is rejected for the same reasons discussed in the rejection of claim 5.

**Regarding claim 14:** Fotland in view of Yoo satisfy all the elements of claim 13. The structural elements of claim 6 perform all of the steps of method claim 14. Thus, claim 14 is rejected for the same reasons discussed in the rejection of claim 6.

**Regarding claim 15:** Fotland in view of Yoo satisfy all the elements of claim 9. The structural elements of claim 7 perform all of the steps of method claim 15. Thus, claim 15 is rejected for the same reasons discussed in the rejection of claim 7.

**Regarding claim 16:** Fotland discloses reading reference color patches (pars. 12 and 29); by a color image sensor (Fig. 1, scanner 2) to obtain image data for the reference color patches (pars. 12 and 29); of the computer program (a computer program is inherently taught as evidenced by Fotland (computer, par. 11) and various memories stored therein); performing processing on the image data for the reference color patches, and outputting the processed image data (par. 12); storing reference image data (par. 25, stored reference image) generated based on the processed



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image data for the reference color patches (par. 29) to provide stored image data of the reference color patches (par. 29); reproducing two images (par. 12, first image file and second image file), a first image (first digital file, par. 12) based on processed image data; the reference color patches (par. 29) after a predetermined plurality of images (pars. 24 and 26); and a second image (par. 12, second digital file) based on the reference image data stored in the storage step (par. 25, stored reference image) containing the stored image data of the reference color patches (par. 29); and displaying the two images so as to be contrasted with each other (par. 12); and issuing an instruction (color-blinking region) to execute calibration of conversion characteristics in the processing for color conversion based on the images displayed in the displaying step (Fig. 2, display screen 28) (par. 12).

Fotland fails to specifically address taken from a reference scan of the reference color patches; taken from a comparison scan of the same reference color patches after a predetermined plurality of images have been scanned; taken from the reference scan of the reference color patches; wherein the reference scan and the comparison scan are scans of the same reference color patches.

Yoo discloses taken from a reference scan of the reference color patches (col. 6, ln. 38-59); taken from a comparison scan of the same reference color patches after a predetermined plurality of images have been scanned (col. 6, ln. 38-59 and col. 8, ln. 37-61); taken from the reference scan of the reference color patches (col. 6, ln. 38-59); wherein the reference scan and the comparison scan are scans of the same reference color patches (col. 6, ln. 38-59 and col. 8, ln. 37-61).

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**Regarding claim 17:** Fotland in view of Yoo satisfy all the elements of claim 16. Arguments analogous to those stated in the rejection of claim 2 are applicable. A computer program is inherently taught as evidenced by (computer, par. 11) and various memories stored therein.

**Regarding claim 18:** Fotland in view of Yoo satisfy all the elements of claim 17. Arguments analogous to those stated in the rejection of claim 3 are applicable. A computer program is inherently taught as evidenced by (computer, par. 11) and various memories stored therein.

**Regarding claim 19:** Fotland in view of Yoo satisfy all the elements of claim 16. Arguments analogous to those stated in the rejection of claim 4 are applicable. A computer program is inherently taught as evidenced by (computer, par. 11) and various memories stored therein.

**Regarding claim 20:** Fotland in view of Yoo satisfy all the elements of claim 16. Arguments analogous to those stated in the rejection of claim 5 are applicable. A computer program is inherently taught as evidenced by (computer, par. 11) and various memories stored therein.

**Regarding claim 22:** Fotland in view of Yoo satisfy all the elements of claim 16. Arguments analogous to those stated in the rejection of claim 7 are applicable. A computer program is inherently taught as evidenced by Fotland (computer, par. 11) and various memories stored therein.

**Regarding claim 23:** Fotland in view of Yoo satisfy all the elements of claim 1.

Fotland fails to specifically address wherein the reference color patches are disposed as a part of the apparatus.

Yoo discloses wherein the reference color patches are disposed as a part of the apparatus (col. 6, ln. 37-59).

**Regarding claim 25:** Fotland in view of Yoo satisfy all the elements of claim 8.

Fotland fails to specifically address wherein the reference color patches are disposed as a part of the apparatus.

Yoo discloses wherein the reference color patches are disposed as a part of the apparatus (col. 6, ln. 38-59).

**Regarding claim 27:** Fotland in view of Yoo satisfy all the elements of claim 9.

Fotland fails to specifically address wherein the storing reference image data scans said reference color patches disposed as a part of the image reading apparatus.

Yoo discloses wherein the storing reference image data scans said reference color patches disposed as a part of the image reading apparatus (col. 6, ln. 38-59).

4. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fotland in view of Yoo and further in view of Whiting et al. (6,618,170).

**Regarding claim 6:** Fotland in view of Yoo satisfy all the elements of claim 5. Fotland further discloses wherein reference image data (color separation files); colorimetric values of the reference patches (YMCK, pars. 10 and 29).

Fotland fails to specifically address adding a predetermined variation.

Whiting et al. disclose adding a predetermined variation (controlling color hue in a printer output, Figs. 3A-3E and col. 4, ln. 11-45).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include adding a predetermined variation in order to control color hue as taught by Whiting et al. (col. 4, ln. 10-17).

**Regarding claim 21:** Fotland in view of Yoo satisfy all the elements of claim 20. Arguments analogous to those stated in the rejection of claim 6 are applicable. A computer program is

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inherently taught as evidenced by Fotland (computer, par. 11) and various memories stored therein.

5. Claims 24, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fotland in view of Yoo and further in view of Kohler et al. (6,873,431).

**Regarding claim 24:** Fotland in view of Yoo satisfy all the elements of claim 1.

Fotland in view of Yoo fail to specifically address wherein the reference color patches are supplied by a user to the apparatus.

Kohler et al. disclose wherein the reference color patches are supplied by a user to the apparatus (col. 7, ln. 15-19 and ln. 41-43 and ln. 57-59).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the user supplying reference color patches in order for different devices to be usable with a single application as taught by Kohler et al. (col. 7, ln. 1-26).

**Regarding claim 26:** Fotland in view of Yoo satisfy all the elements of claim 8.

Fotland in view of Yoo fail to specifically address wherein the reference color patches are supplied by a user to the apparatus.

Kohler et al. disclose wherein the reference color patches are supplied by a user to the apparatus (col. 7, ln. 15-19 and ln. 41-43 and ln. 57-59).

**Regarding claim 28:** Fotland in view of Yoo satisfy all the elements of claim 9. The structural elements of apparatus claim 27 perform all of the steps of method claim 28. Thus, claim 28 is rejected for the same reasons discussed in the rejection of claim 27.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
CMB



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PRIMARY PATENT EXAMINER